

REMARKS

I. Status of the Application

Claims 18-37 are pending in this application. In the August 8, 2007 office action, the Examiner:

- A. Rejected claims 32 and 37 under 35 U.S.C. §112, second paragraph, as being indefinite;
- B. Rejected claims 18-20, 22-28, and 30-37 under 35 U.S.C. §102(b) as being anticipated by Fenner et al. (U.S. Patent No. 5,842,224);
- C. Rejected claim 21 under 35 U.S.C. §103(a) as being unpatentable over Fenner et al. in view of Okada et al. (U.S. Patent No. 6,026,198); and
- D. Rejected claim 29 under 35 U.S.C. §103(a) as being unpatentable over Fenner et al. in view of Yamato et al. (U.S. Patent No. 6,094,431).

In this response, claims 20, 30, 32 and 37 have been amended. Applicants respectfully traverse the rejection of the claims and request reconsideration based on the foregoing amendments and following remarks.

II. Indefiniteness Rejection of Claims 32 and 37

Claims 32 and 37 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. In particular, claims 32 and 37 were rejected because the phrase “reduces redundancy” was considered to have rendered claims 32 and 37 indefinite because it is unclear how the redundancy is being reduced. Claims 32 and 37 have each been amended to remove

the phrase “reduces redundancy.” Accordingly, it is respectfully submitted that the indefiniteness rejection of claims 32 and 37 should be withdrawn.

II. Amendments to Claims 20 and 30

Although claim 20 was not rejected as being indefinite for the use of the phrase “reduces redundancy,” claim 20 has been amended to remove the use of this phrase in order to be consistent with the amendments to claims 32 and 37.

Claim 30 inadvertently included the phrase “routing table store means” as opposed to simply “routing table store” in line 8 of the claim. Claim 30 has been amended to remove the “means” from this phrase.

III. The Prior Art Rejections

Claims 18-37 were rejected as being anticipated by Fenner, or rendered obvious by Fenner in view of either Okada or Yamato. For the reasons discussed below, neither Fenner, Okada nor Yamato teach, show or suggest each and every limitation of any of claims 18-37.

A. Claim 18

Claim 18 was rejected as being anticipated by Fenner. Claim 18 includes the limitation of “comparing the compressed destination address identifier with entries of a routing table, each entry corresponding to a forwarding address available for routing.” Fenner fails to teach, show or suggest such a limitation.

1. Present Invention

Claim 18 is directed to a method for routing data packets that includes the steps of:

- (a) extracting a destination address identifier from a data packet to be forwarded,
- (b) compressing the destination address identifier using a compression algorithm,
- (c) comparing the compressed destination address identifier with entries of a routing table, each entry corresponding to a forwarding address available for routing, and
- (d) if a positive comparison between the compressed destination address identifier and an entry stored in the routing table is found in step (c), then switching the data packet to an output link associated with the forwarding address corresponding to the entry.

Thus, claim 18 involves compression of a destination address identifier from a data packet. The compressed destination address identifier is then compared to the entries in a routing table with every entry corresponding to a respective forwarding address. If a correspondence is found between the compressed destination address identifier and one of the forwarding addresses stored in the routing table, then the data packet is switched to an output link associated with the corresponding forwarding address.

2. Fenner

Fenner is directed to an apparatus and method for implementing a routing table directory to provide for fast access times to look up routing information. This apparatus is an application of an associative memory utilizing arithmetic coding to associate a key presented to the memory with a record stored in the memory. The associative memory includes an index table stored in memory and a record memory for storing the records of data. The index table is

constructed such that each symbol of a key addresses an index value in the index table memory.

The index of Fenner is not compared to the entries in the address index table. To the contrary, the index of Fenner is used to directly address a memory location. For example, according to Fenner, a destination address is compressed by an arithmetic code process to obtain an index which is used as the address of a location in an address index table. An address index table has a number of memory locations, each memory location containing routing information. The index of Fenner is used to directly address a memory location of the address index table to retrieve the routing information contained therein. (Fenner, Figs. 2 and 3, col. 13, lines 59-62).

Accordingly, Fenner discloses compression of a destination address, but fails to disclose a comparison of the compressed destination address with the entries in a routing table. Fenner only states that the compressed destination address, i.e. the index, is used to “find” a unique address in the compressed address directory. (Fenner, col. 18, line 6). However, “finding” according to Fenner is not the same as “comparing” as required by claim 18. Moreover, the hashing type look-up strategy of Fenner is based upon directly addressing a record of the routing table by means of the index, thereby avoiding any type of comparison.

3. Conclusion with Respect to Claim 18

Because Fenner fails to disclose “comparing the compressed destination address identifier with entries of a routing table, each entry corresponding to a forwarding address available for routing,” Fenner cannot anticipate claim 18. Therefore, it is respectfully

submitted that the anticipation rejection of claim 18 should be withdrawn.

B. Claims 19-29

Claims 19-29 were rejected as being anticipated by Fenner, or rendered obvious by Fenner in view of either Okada or Yamato. Claims 19-29 depend directly or indirectly from and incorporate all of the limitations of claim 18. Accordingly, for at least the same reasons as those set forth above in connection with claim 18, it is respectfully submitted that the rejection of claims 19-29 over the prior art should be withdrawn as well.

C. Claim 30

Claim 30 was rejected as being anticipated by Fenner. However, claim 30 includes the limitation of “a routing unit configured to compare the compressed destination address identifier with the entries stored in the routing table store for finding a correspondence between the compressed destination address identifier and one of the entries, each entry corresponding to a forwarding address.” Thus, claim 30 includes limitations similar to those found in claim 18. Therefore, for at least the same reasons as those set forth above in connection with claim 18, it is respectfully submitted that the rejection of claim 30 over the prior art should be withdrawn as well.

D. Claims 31-35

Claims 31-35 were rejected as being anticipated by Fenner. Claims 31-35 depend directly or indirectly from and incorporate all of the limitations of claim 30. Accordingly, for

at least the same reasons as those set forth above in connection with claim 30, it is respectfully submitted that the rejection of claims 31-35 over the prior art should be withdrawn as well.

E. Claim 36

Claim 36 was rejected as being anticipated by Fenner. However, claim 36 includes the limitation of “a routing unit for comparing the destination address identifier with the entries stored in the routing table storing means for finding a correspondence between the destination address identifier and one of the forwarding addresses.” Thus, claim 36 includes limitations similar to those found in claim 18. Therefore, for at least the same reasons as those set forth above in connection with claim 18, it is respectfully submitted that the rejection of claim 36 over the prior art should be withdrawn as well.

F. Claim 37

Claim 37 was rejected as being anticipated by Fenner. Claim 37 depends directly or indirectly from and incorporates all of the limitations of claim 36. Accordingly, for at least the same reasons as those set forth above in connection with claim 36, it is respectfully submitted that the rejection of claim 37 over the prior art should be withdrawn as well.

III. Conclusion

For all of the foregoing reasons, it is respectfully submitted the applicant has made a patentable contribution to the art. Favorable reconsideration and allowance of this application is therefore respectfully requested.

In the event applicant has inadvertently overlooked the need for an extension of time or payment of an additional fee, the applicant conditionally petitions therefore, and authorizes any fee deficiency to be charged to deposit account 13-0014.

November 8, 2007

Respectfully submitted,

A handwritten signature in black ink, appearing to read "David R. Moorman". The signature is fluid and cursive, with a long horizontal stroke extending from the end.

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